

REMARKS

Favorable reconsideration of the present application, as amended above, is respectfully requested in view of the comments below.

Claims 1, 5 and 7 have been amended to replace the term “comprising” with “consisting essentially of.” New claim 15 has been added. Support for the new claim is found in the original claims and in the specification at page 9, first paragraph for example. Accordingly, no new matter is added by the amendments to the claims.

In the Advisory Action the Examiner maintains that Applicants have not provided sufficient evidence that the class of compounds known as xanthine oxidase inhibitors will act to treat hypertension. Applicant disagrees with the Examiner’s conclusion.

The specification teaches that there is a link between high serum uric acid levels and high blood pressure. The specification also provides evidence of the deleterious effects of high serum uric acid levels on blood pressure and demonstrates that these deleterious effects are prevented or successfully treated by administration of a known xanthine oxidase inhibitor, allopurinol. Applicant has also cited the Merck Index which discloses that allopurinol is a member of a well known class of compounds that lower uric acid levels. [See Merck Index, pp. 52 and 53, of record].

The enclosed published review article, Hayden and Tyagi, Nutrition and Metabolism 2004, 1:10, discloses that there is a link between high uric acid content and hypertension and suggests four potential mechanisms involved in the association between hyperuricemia and hypertension [page 13, section entitled “Hypertension”]. Among the potential mechanisms is increased xanthine oxidase production, which ultimately results in increased levels of oxidative-redox stress [page 14]. The review article also cites three references (all published in 2002 or later) that demonstrated administration of an xanthine oxidase inhibitor, either allopurinol or oxypurinol, reversed the

production of superoxide (reactive oxygen species), returning the system to production of nitric oxide, which reduces oxidative–redox stress. [page 14] Thus, this review article provides further evidence that other xanthine oxidase inhibitors, *e.g.*, oxypurinol, have the same effect as allopurinol, and further demonstrates that allopurinol is a member of a class of compounds that have the claimed effect on hypertension.

It is also evident from the disclosure of the enclosed review article that a link between high uric acid levels and hypertension is known, and there are several organic defects that can lead to increased uric acid content and hypertension [Hayden and Tyagi, page 14]. Applicant has discovered that use of a compound that lowers uric acid levels, such as an xanthine oxidase inhibitor or other uric acid lowering compound, is sufficient to lower blood pressure. Thus, the specification provides an enabling disclosure for use of the claimed class of compounds which are known in the art to lower uric acid levels.

Accordingly, the rejection of claims 1, 5, 7 and 14 under 35 U.S.C. § 112, first paragraph, is respectfully traversed.

The rejection of claims 1, 5, 7 and 14 under 35 U.S.C. § 103(a) and 102(b) over Mentrup *et al.* was maintained in the Advisory Action. Applicant maintains that the Mentrup *et al.* reference does not teach that allopurinol, a known xanthine oxidase inhibitor, is a hypotensive agent. Instead, Mentrup *et al.* discloses compositions containing piperidine derivatives and the use of such compounds as vasodilators or hypotensives and the inclusion of several compounds, including allopurinol, that are known to have a “cardiac circulatory effect or a hypotensive effect.” However, as pointed out to the Examiner in the response to final Office Action filed September 22, 2004, allopurinol is not a known hypotensive agent, but is instead a known agent for treating

hyperuricemia [Merck Index, pp. 52-53 2001, of record]. Thus, as late as 2001, allopurinol was not known to have a hypotensive effect.

Moreover, Mentrup *et al.* does not disclose or suggest the use of allopurinol alone in the treatment of cardiovascular disease, and in particular hypertension. There is no disclosure or suggestion in the cited reference that the agents listed in the table in column 9 as optional components of the claimed composition may be used in place of Mentrup *et al.*'s claimed piperidine derivatives. Thus, the cited reference neither anticipates nor renders obvious the presently claimed invention.

It is respectfully submitted that the present application, with claims 1, 5, 7, 14 and 15 is in condition for allowance, an early notification thereof being earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT WILL & EMERY LLP



Judith L. Toffenetti
Registration No. 39,048

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 JLT:ajb
Facsimile: 202.756.8087
Date: November 22, 2004

**Please recognize our Customer No. 20277
as our correspondence address.**